

USER AND MAINTENANCE MANUAL



TICKNESS AND LIPPING PLANER Art. 0686/200



TRANSLATION OF THE ORIGINAL INSTRUCTIONS

PREFACE



Read this manual before carrying out any operation

ORIGINAL INSTRUCTIONS

Please ensure you have read the owner's manual before operating the planer. All the instructions in this manual must be applied rigorously to ensure optimum machine performance.



Operator Qualifications

Please ensure all machine operators are given all required information and adequate safety instruction and training in:

- a) Machine operating conditions;
- b) Foreseeable abnormal situations;
- c) pursuant to art. 73 of Legislative Decree 81/08.

We guarantee the Machine's conformity to specifications and technical instructions described in the Manual on the date of issue, listed on this page; however, the machine may be subject to potentially major technical changes in future, without the Manual being updated.

Therefore, contact FERVI for information about modifications that could be implemented.



TABLE OF CONTENTS

1. INTRODUCTION.....	5
1.1 Preface.....	6
2. SAFETY.....	7
2.1 General safety rules.....	7
2.2 Safety regulations for electric machines.....	9
2.3 Technical assistance.....	10
2.4 Other Provisions.....	10
3. TECHNICAL SPECIFICATIONS.....	11
4. MACHINE DESCRIPTION.....	12
4.1 Suction system.....	13
4.2 Main parts of the Planer. 0686/200.....	14
4.3 Identification plates.....	15
4.4 Pictograms.....	15
5. DESCRIPTION OF CONTROLS.....	17
5.1 On and off switches.....	17
5.2 Emergency button.....	18
5.3 Reset button.....	19
5.4 Adjustment knobs work tables and shelters.....	20
6. MACHINE SAFETY DEVICES.....	22
6.1 Electric safety devices.....	22
6.2 Safety devices against "mechanical" risks.....	22
6.2.1 Protective casing of the transmission of motion.....	22
6.2.2 Planer shaft guard (cutting blades).....	23
6.2.3 Cutterhead and sawdust collection interlocked protective covers.....	23
6.3 Use of PPE.....	24
7. IMPROPER USE AND CONTRAINDICATIONS.....	25
8. TRANSPORT AND LIFTING.....	25
9. INSTALLATION AND COMMISSIONING.....	26
9.1 Machine delivery and unpacking.....	26
9.2 Assembly.....	27
9.3 Positioning.....	27
9.4 Electrical connection.....	28
10. OPERATION.....	29
10.1 Precautions for use.....	29
10.2 Starting/Stopping.....	29

10.3	How to configure the lipping planer	30
10.4	Configuration for " thickness" planing	33
10.5	How to perform safe planing.....	35
10.5.1	Surface planing.....	35
10.5.2	Lipping planing	36
10.5.3	Planing pieces of greater thickness.....	36
10.5.4	Planing short workpieces.....	37
10.5.5	Planing with 45° inclined guide	37
10.5.6	Strip planing	37
10.5.7	Thicknessing	38
11.	MAINTENANCE	38
11.1	Ordinary maintenance.....	38
11.1.1	Routine at the end of each processing	38
11.2	Periodically	39
11.3	Lubrification.....	39
11.4	Checking/replacing the drive belts	40
11.5	Replacing the cutting blades.....	41
12.	DISPOSAL OF COMPONENTS AND MATERIALS.....	41
13.	TROUBLESHOOTING	42
14.	ELECTRIC CIRCUIT	43
15.	REPLACEMENT PARTS.....	44



1. INTRODUCTION

The purpose of this manual is to provide the knowledge necessary for the use and maintenance of the **Thickness and lipping planer Art. 0686/200**, and create a sense of responsibility and a knowledge of the possibilities and limitations of the tool entrusted to the operator.

As the machine is entrusted to experienced and skilled operators, the following machine must be perfectly known by the operator if you want it to be used safely and effectively.

The selection of personnel is an important factor for the purposes of efficiency and safety in the workplace, and the people considered suitable to perform a specific job must have the sufficient physical and mental capacity to allow them to understand the instructions that they are given.

GRAPHIC REPRESENTATION OF SAFETY, OPERATIONAL AND RISK WARNINGS

The following boxes are designed to attract the attention of the reader / user for the **proper** and **safe** use of the machine:



Pay Attention

This emphasizes behavioral rules to avoid damaging the machine and/or the occurrence of hazardous situations.



Residual Risks

This emphasizes the presence of hazards causing residual risks which the operator must watch for to avoid personal injury or property damage.

1.1 Preface

Read this manual carefully to acquire full knowledge of the machine and general precautions to be observed during operation. In other words, the life and performance of the Planer are dependent on how it is used.

Follow the instructions contained herein, in addition to the general precautions to be observed while working. Even if the operator is already familiar with the planer, it is necessary to:

1. Acquire full knowledge of the machine.
2. Read this manual carefully to understand: operation, safety devices and all necessary precautions. All this is to allow safe use of the machine.
3. Wear appropriate clothing for the job.
4. The operator must wear appropriate clothing to prevent the occurrence of unpleasant accidents.
5. Take proper care of the machine.



Using the Machine

The machine must only be used by qualified personnel trained to use the machine by authorized personnel.



2. SAFETY

2.1 General safety rules



Machine risks

DO NOT underestimate the risks associated with using the machine and concentrate on the work in progress.



Machine risks

All accident prevention measures reported in this manual must be observed even when all safety devices are implemented for safe machine operation.



Machine risks

Every person responsible for machine operation and maintenance is required to have read the instruction manual first and specifically the chapter on safety instructions.

It is recommended that the plant safety manager get written confirmation of the above.



Operator Protection

Before starting any type of work on the machine, the operator must wear appropriate personal protective equipment (PPE) such as goggles and gloves.

1. Read this manual carefully, and then work safely.
2. Always check the efficiency and integrity of the machine.
3. Keep your working area clean to prevent damage.
4. Do not start the machine in an enclosed or poorly ventilated area, or in the presence of a flammable and/or explosive atmosphere. Do not use the machine in damp and/or wet locations, or those exposed to rain.
5. Avoid starting accidentally.
6. Make sure that the work environment is forbidden to children, non-employees and animals.
7. Before starting the machine, get used to ensuring that no remaining maintenance and service keys are inserted. Keep the work environment tidy.
8. Do not force the machine. Use tools appropriate to the seriousness of the job.
9. Do not perform tasks on the machine other than those for which it was designed. Only use the machine in the manner in which it was intended, as described in this instruction manual.
10. Always wear eye protection and protective gloves while working. If dust is produced, use appropriate masks.
11. Wear appropriate clothing. Loose and dangling clothing, jewellery, long hair, etc. can get caught in moving parts or the blade, causing permanent injuries.
12. Keep the workplace tidy and free from obstruction; untidiness causes accidents.
13. Always connect the appliance for vacuuming of the sawdust.
14. Do not pull the cord to unplug. Keep it away from heat, oil or sharp edges.

15. Always work in safety. Take all precautions to avoid accidental contact with the moving parts.
16. Periodically check the stability of the machine.
17. Maintain the machine with care and clean in its entirety. Keep cutting tools clean and sharp. Follow instructions for lubricating and changing accessories. Periodically check the condition of the power cables.
18. Replace worn and/or damaged parts, check that the repairs and protection work correctly before operating. If necessary, have it checked by Technical Support staff. Use only original spare parts.
19. Check the machine for damaged parts. Before you use the machine after the replacement/repair of the parts you need to check that it is working properly. Check for alignment and connection of moving parts, failures, the correct mounting.
20. Pay maximum attention to what you are doing and use common sense when you use the machine. Use the machine only when in good physical condition (never when you are tired).
21. The use of accessories or devices other than those recommended in this instruction manual and may pose a risk to the safety of the operator.
22. Repairs may only be carried out by qualified and authorised personnel.
23. Do not use the machine if the caps are not in their designated position and correctly adjusted. Each part of the blade not used for planing should be protected.
24. Do not use blades which are not sharpened because this increases the risk of rejection (return back) of the workpiece.
25. When planing short and/or tight workpieces, use the push-piece tool to push them towards the blade.
26. Do not use the machine to make grooves.
27. The effectiveness of the workpiece anti-rejection device and the feed roller should be checked periodically.
28. Work without disturbances.
29. Work only with good lighting.
30. Do not leave the tool unattended until the blade and other moving parts, are completely shut down. To do this, use the shutdown command to stop the machine.
31. **Unplug the power cord of the machine from the power socket when:**
 - the machine is not in use;
 - the machine is left unattended;
 - after maintenance or registration, the machine does not work properly;
 - the power supply cable is damaged;
 - replacing the cutting tool;
 - moving or transporting the machine;
 - cleaning.
32. Users of this manual for maintenance and repair are required to have basic knowledge of mechanical principles and procedures inherent in technical repair.
33. **The company safety officer is required to make sure that machine operators have read and understood this manual in its entirety.**
34. **Management is responsible for safety and verification of the company's risk status according to Legislative Decree 81/08.**



2.2 Safety regulations for electric machines



Changes in the Electrical System

1. Do not modify the electrical system in any way. Any attempt in this regard may jeopardize the operation of electrical devices, thus causing malfunction or accident.
2. Work carried out in the electrical system of the machine must, therefore, be carried out only by qualified and authorized personnel.
3. If you hear unusual noises, or feel something strange, immediately stop the machine. Then carry out an inspection and, if necessary, perform any repairs as required.
4. The supply voltage must correspond to that stated on the label and in the technical specifications (230 V / 50 Hz). **Never use any other type of power supply!**
5. It is recommended the use of a life saving device on the power supply line for a trip range from 10 to 30 mA nominal. For more detailed information, contact a trusted electrician.
6. The socket must be earthed. Extension cables must have sections that are the same or greater than the sections of the power cable of the machine.
7. Make sure that the power cord does not come into contact with hot objects, wet surfaces, oil or sharp edges.
8. The power cord should be checked regularly and before each use to check for signs of damage or wear. If these are not in good condition, do not use the machine and replace the cable.

2.3 Technical assistance

For any problems or concerns, please contact, without hesitation, the Customer Service Department of the dealer from whom you purchased the product, who has competent and specialised staff, specific equipment and spare parts.

2.4 Other Provisions

It is forbidden to tamper with safety devices

Check the presence and integrity of protections and the proper functioning of safety devices before starting operation.

Do not use the Planer in case of defects!

It is strictly forbidden to modify or remove guards, safety devices, labels and caution signs.



3. TECHNICAL SPECIFICATIONS

Description (measurement unit)	Art. 0686/200
Overall size (mm)	770 x 430 x 450 (h)
Rated voltage (V)	230
Power (W)	1,250
Frequency (Hz)	50
Blade shaft rotations (RPM)	8,000
Blade shaft diameter (mm)	50
Number of blades	2
Net weight (kg)	25
Loadless acoustic pressure level (dB (A))	83
Loaded acoustic pressure level (dB (A))	83
Loadless acoustic pressure level at operator's workstation (dB (A))	101.2
Acoustic pressure level under load at operator workstation dB (A))	102.1
Vibration measured by the hand-arm system (m/s ²)	2.31

Planer configuration	Art. 0686/200
Cutting capacity (mm)	204 x 2
Bracket size (mm)	500 x 90
Bracket angle (°)	90° - 135°
Table size (mm)	737 x 210

Thickness Planer configuration	Art. 0686/200
Cutting capacity (mm)	204 x 2 x 120
Table size (mm)	250 x 204

4. MACHINE DESCRIPTION

The **THICKNESS PLANER (ART. 0686/200)** is a machine designed to plane a surface and give a piece of wood one predetermined thickness.

When planing, the piece of wood is pushed forward over the cutterhead and scraped the bottom surface. Excised thickness is adjustable by turning the feed table height.

When thicknessing, the wooden piece rests on adjustable floor height of planer and advancing under the cutterhead, the top surface is scraped.

The machine is designed for processing wooden planks.

Other types of use, or the extension of use beyond that envisaged, does not correspond to the designation attributed by the manufacturer, and therefore the latter cannot accept any responsibility for any damages resulting therefrom.



Intended use and materials

The Planer has been designed and manufactured for the use specified; a different use and non-observance of the technical parameters laid down by the manufacturer may be dangerous to operators.

In particular, with regard to the type of material, DO NOT use the machine for non-wood materials.

The planer consists of:

- The main frame, entrance and exit tables of the lipping planer and the work platform of the thickness Planer;
- electric motor and its pull rollers;
- two cutterhead blades (cutting tools);
- on and off buttons and thickness adjustment devices.

Conversely, the Planer differs primarily for means of protection (crankcase, micro-switches, etc.) used to set the machine in safety in the transition from one job to another configuration.

For a detailed view of the various parts of the machine, refer to paragraph 4.1 of this manual.

The motor works at constant speed: there is no rotation speed adjuster.

The Planer must be installed and used on a flat, stable surface and adequate resistance.

The Planer is designed and intended for use in enclosed workplaces (production departments, warehouses, etc.).

The best performance can be obtained only if certain conditions are met:

- use within the temperature range from -5 to +40° C;
- relative humidity from 30% to 95%, non-condensing;
- height above sea level max. 1000 m.

The environment must also be sufficiently well lit to ensure maximum operational safety (at least 50 lux is recommended).



4.1 Suction system

The Planer must peremptorily be connected to a dust suction device before each use. The suction device must have an air flow with a minimum speed of 20 m/s.

The appliance's suction tube for sawdust and dust, must be connected to the suction nozzle as follows:

Art. 0686/200: Lipping planer configured for planing: the suction nozzle is placed under the work table;

Planer for planing configured "thicknessing": the suction nozzle is positioned above the work table.

It is important to respect the environment: to dispose of the shavings in compliance with current legislation.

4.2 Main parts of the Planer. 0686/200

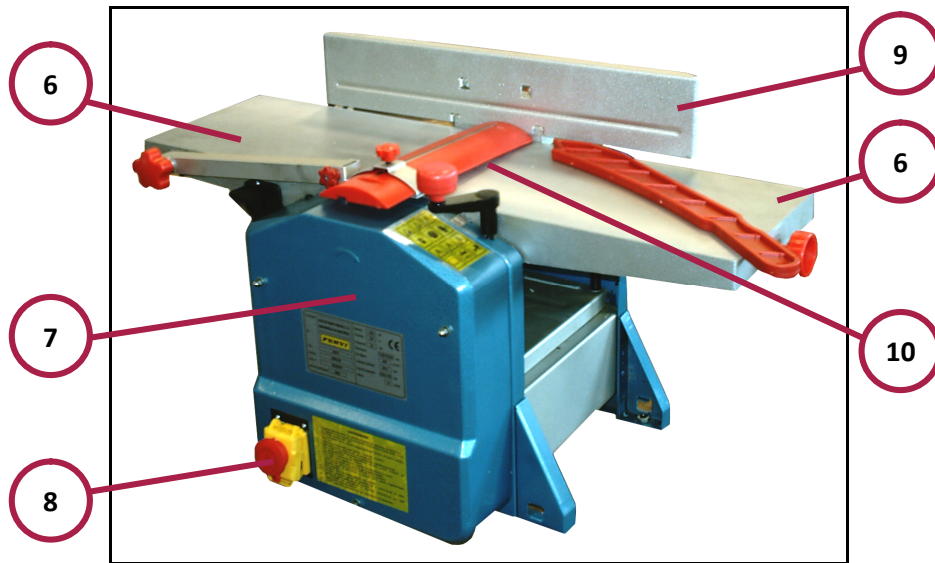


Figure 1 – main parts of "lipping" Planer – Art. 0686/200.

6 Work tables (lipping planer)

7 Fixed front cover

8 On / off buttons

9 Lateral guide

10 Moveable guard cutterhead guard

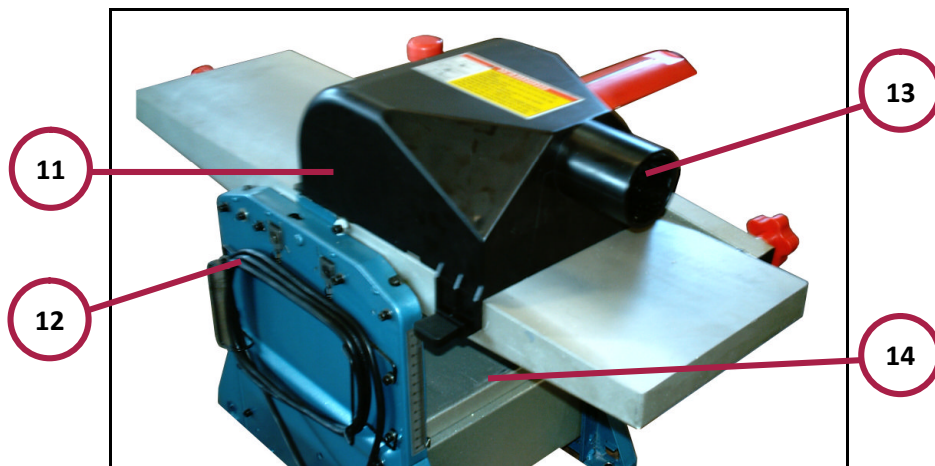


Figure 2 – main parts Planer "thickness" – Art. 0686/200.

11 Interlocked
crankcase

blade

protection

13 Suction nozzle

12 Power cable

14 Work platform ("thickness" Planer)



4.3 Identification plates

The identification plate shown below is attached to the machine.

Fabbricante	FERVI Via del commercio 81 41058 Vignola MO	
Marca	FERVI PRO SMART EQUIPMENT	
Tipo	Pialla a filo spessore	Made in PRC
Articolo	0686/200	Capacità pialla filo 204 x 2 mm
Lotto n°		Capacità spessore 204 x 2 h120 mm
Anno	2013	Tensione 230 V
Giri albero	8000 giri/min	Frequenza 50 Hz
		Potenza 1250 W
		Massa 27 kg

Figure 3 – identification plate – Art. 0686/200.

4.4 Pictograms

The machine has the following pictograms:



ATTENZIONE

1. Leggete attentamente le istruzioni prima di utilizzare la macchina.
2. L'operatore deve avere un'adeguata conoscenza e familiarità della macchina prima dell'uso.
3. La macchina deve essere adeguatamente fissata al pavimento prima dell'uso.
4. Indossate indumenti appropriati e occhiali protettivi.
5. Indossate cuffie antirumore, se necessario.
6. Non usate la macchina senza le protezioni antinfortunistiche.
7. La manutenzione e le regolazioni devono essere eseguite da personale competente ed esperto.
8. Non effettuate regolazioni quando la macchina è in moto.
9. Usate la macchina solo quando gira regolarmente.
10. Non forzate mai il materiale durante le lavorazioni.
11. Quando usate la macchina il motore deve girare regolarmente senza forzare.
12. Tenete le dita e le mani lontano dai coltelli.
13. Quando eseguite lavori di regolazione o sostituzioni di parti, togliete la spina della presa di corrente.
14. Si consiglia di consultare il manuale d'istruzione per altre indicazioni sulla sicurezza.
15. Usate l'apposito spingipezzo per operazioni di piallatura.

Figure 4 – warning and hazard pictograms.

Description

PLATE IN ITALIAN

ATTENZIONE

1. Leggete attentamente le istruzioni prima di utilizzare la macchina.
2. L'operatore deve avere un'adeguata conoscenza e familiarità della macchina prima dell'uso.
3. La macchina deve essere adeguatamente fissata al pavimento prima dell'uso.
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8. Non effettuate regolazioni quando la macchina è in moto.
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13. Quando eseguite lavori di regolazione o sostituzioni di parti, togliete la spina della presa di corrente.
14. Si consiglia di consultare il manuale d'istruzione per altre indicazioni sulla sicurezza.
15. Usate l'apposito spingipezzo per operazioni di piallatura.

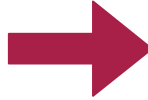


PLATE IN ENGLISH

ATTENTION!!

1. Read the instructions carefully before using the machine.
2. The operator must have adequate knowledge and familiarity of the machine before use.
3. The machine must be securely fastened to the floor before use.
4. Wear appropriate clothing and protective goggles.
5. Wear ear protection if necessary.
6. Do not use the machine without the safety guards.
7. Maintenance and adjustments must be performed by skilled and experienced staff.
8. Do not make adjustments while the machine is running.
9. Use the machine only when it is running smoothly.
10. Never force the material during processing.
11. When using the machine, the motor should run smoothly without forcing.
12. Keep your fingers and hands away from the knives.
13. When performing any adjustment or replacement of parts, remove the plug from the socket.
14. Please consult the instruction manual for other safety guidelines.
15. Use the appropriate pusher for planing operations.



5. DESCRIPTION OF CONTROLS

5.1 On and off switches

The Planer command buttons are at the bottom of the front guard, as shown by the red line in **Figure 5**.

The green button (I) starts the Planer. By pressing this button, the electric motor is powered and the cutterhead and grooved pull rollers are put into rotation.

When the machine starts, push the yellow cap towards the clamp, without clamping it.



Machine start-up

When you press the Green start switch, the cutterhead immediately starts to rotate.

Conversely, the red button (0) is used to turn off the Planer. By pressing this button, remove the power supply to the electric motor and stop the Planer shaft rotation and other moving parts.

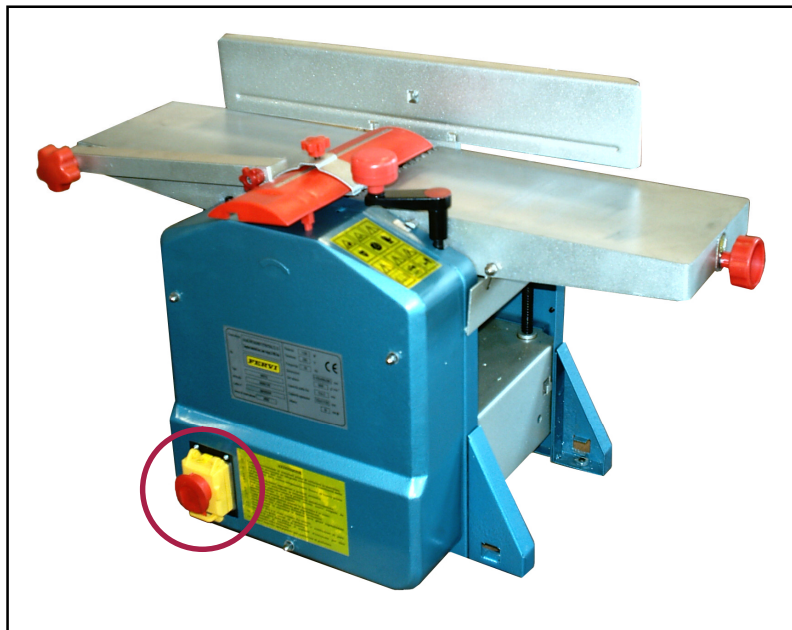


Figure 5 – position of command buttons.



Risk of injury

After pressing the stop switch (0), the tree continues to rotate by inertia for a few moments. Do not hold body parts near the moving blades!

5.2 Emergency button

On the planer command buttons, there is an emergency stop cap.

To stop the machine in case of emergency, press the red cap as shown in **Figure 6**. When you press it, it stops the electric motor and by extension the cutterhead.

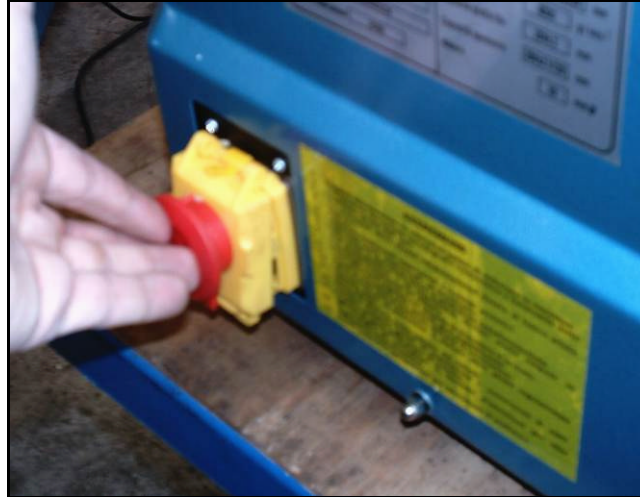


Figure 6 – Emergency stop.

To restore the power of the machine again, after an emergency stop, open the red cap and press the green ignition button (I).



Emergency stop control

Before starting any work on the machine, make sure that the emergency button functions.



5.3 Reset button

There is a reset button (ref. 15 in [Figure 7](#)) on the front cover of the planer next to on/off buttons.

Press this button to restore the machine as required, for example after a thermal engine block, etc.



Figure 7 – reset button.



Reset machine

Before you reset the machine, make sure you have removed the cause that caused the alarm.

5.4 Adjustment knobs work tables and shelters

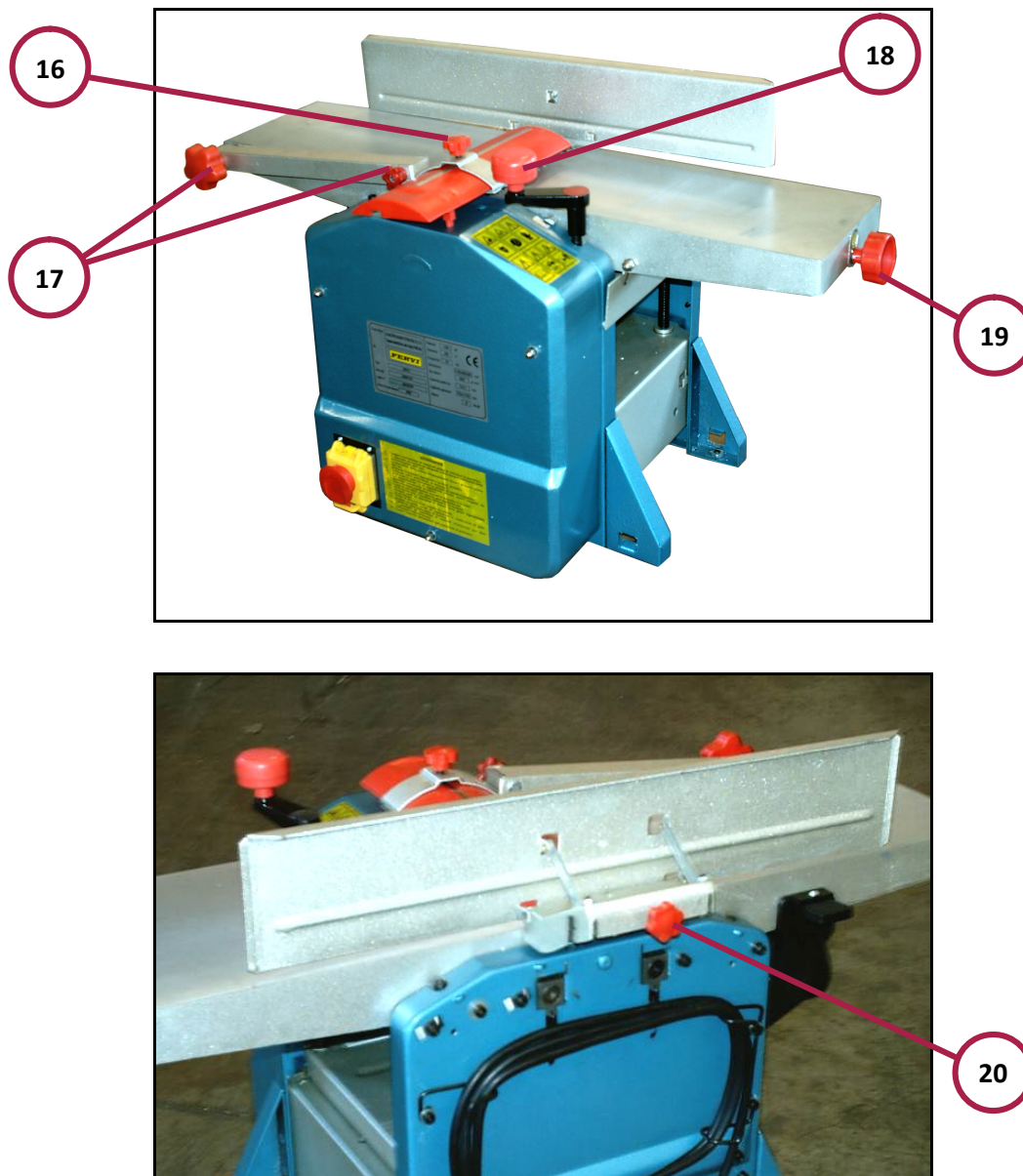


Figure 8 – Planer adjustment knobs.

- 16** Blade guard transverse scroll lock
- 17** Blade guard pivot locks
- 18** Thickness adjustment ("thickness" Planer)

- 19** Thickness adjustment (lipping planer)
- 20** Inclination lock side guide

**Blade guard transverse scroll lock (16)**

The knob is above the safety guard on the blade (Figure 8).

Screw this knob, turning it clockwise to lock the blade guard into the desired position.

Blade guard pivot locks (17)

The knobs are positioned at the ends of the support arm of the safety guard on the blade (Figure 8).

Tighten these knobs, turning them clockwise to lock the support arm of the blade guard into the required position.

Thickness adjustment ("thickness" Planer) (18)

The handle is next to the side of the table, at the top of the machine (Figure 8).

Rotate the crank clockwise to lift the platform of lower job, i.e. to decrease planing thickness "thick". The operator can control the planing thickness on a scale this close to the lower floor.

Thickness adjustment (lipping planer) (19)

The knob is located at the end of the table, at the top of the machine (Figure 8).

Turn this knob clockwise to raise the working table, i.e. to decrease lipping planer thickness. The operator can control the planing thickness on the graduated scale near the upper table.

Inclination lock side Guide (20)

The knob is behind the lateral guide, i.e. at the opposite side of the cutterhead (Figure 8).

Screw this knob, turning it clockwise to lock the edge guide in the desired position.

6. MACHINE SAFETY DEVICES

6.1 Electric safety devices

In the event of malfunction or breakdown, the Planer is equipped with power cable and plug with grounding conductor, which provides a path of least resistance for electric current and reduces the risk of electric shock.

The plug must be plugged into an appropriate outlet, earthed in accordance with current regulations.

Any extension cords must be of a section at least equal to or greater than the power cord of the machine.



Electric shock

Improper earth connection of the machine can result in the risk of electric shock.

Check with a qualified electrician if you don't understand the grounding instructions or if you have any doubts about grounding the machine.

6.2 Safety devices against "mechanical" risks

6.2.1 Protective casing of the transmission of motion

The protective casing prevents the operator's body parts, particularly hands and/or fingers, from coming into direct contact with the transmission components of the machine, when it is activated.



Casing Position Control

Each time you use the Planer, check that the front guard is in perfect position and check that the protective front cover is safely fastened.

Figure 9 shows the correct position of the front cover. It is fastened by the appropriate nuts supplied.



Figure 9 – front guard.



6.2.2 Planer shaft guard (cutting blades)

The planer is equipped with a "bridged" shelter, adjustable transversally and in height, for the protection of the cutterhead (Figure 10).

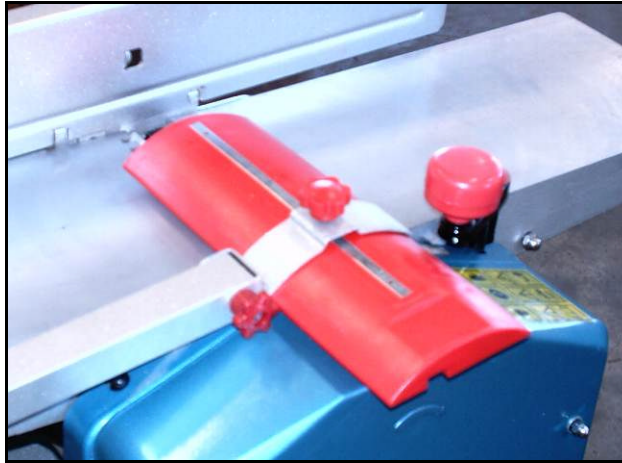


Figure 10 – Cutterhead guard.

This guard prevents splinters, shards of blade or fragments that were to pull out, to be thrown towards the operator's face, but also that the operator may come in direct contact with the rotating cutting tool.



Repair Control

Each time you use the Planer, check that the blade shaft guard is in perfect position and safely fastened.

See paragraph 10.5 of this manual for further details.

6.2.3 Cutterhead and sawdust collection interlocked protective covers

The Planer is equipped with an interlocked guard to be placed on the cutterhead to cover the part not involved in the process.

The guard prevents the operator from coming into contact with the tool in motion, collects dust and sawdust produced during planing, to protect the operator's face.

The type and assembly of these repair depends on the type of planning performed (lipping or thickness); please refer to Chapter 10 of this manual for a more detailed explanation.

The shelter is still interlocked, preventing machine startup until it has been fixed correctly into safe position.



Checking interlocked guards

- Each time you use the Planer, check the perfect positioning and operation of the interlocked cutterhead protection guard.

See Chapter 10 of this manual for further details.

- Also, before you start working, connect the suction device to the guard/collector vent.

6.3 Use of PPE.

Even if the Planer is equipped with safety devices, there are dangers of injury related to the execution of the work.

It is good that the operator before starting to work, wearing personal protective equipment (PPE):

- wear glasses or protective mask to prevent chips, dust or other parts from damaging your eyes or face;
- to protect your hands from splinters on the workpiece scratch-resistant gloves;
- to protect your hearing wear ear protection devices such as ear muffs or ear plugs;
- use suitable clothing at work, close fitting and free of dangling parts.



Use of PPE.

ALWAYS use appropriate personal protective equipment (PPE) such as (see [Figure 11](#)):

- Gloves;
- Goggles or face shields;
- Ear muffs or ear plugs;
- Overalls or aprons;

Safety shoes.



Figure 11 – Personal protective equipment.



7. IMPROPER USE AND CONTRAINDICATIONS

The following actions, which obviously cannot cover the entire range of possible "misuse" of the machines are **strictly forbidden**.



IT IS STRICTLY FORBIDDEN!

- To use the machine for cutting non-wood materials;
- To hold the workpiece by hand;
- To use the machine without protective cover or with the cover open;
- To use the machine for purposes other than those for which it was designed;
- To Exceed the working capacity stated by the manufacturer.
- To leave the machine unattended with the plug inserted.
- To allow untrained staff to use the machine;
- To operate this machine if you are not psychophysically fit;
- To use the machine without due attention;
- To use the machine without using suitable personal protective equipment, such as footwear, gloves, goggles or face shields, ear protection, etc.;
- To use the machine in unforeseen environmental conditions (weather, high magnetic fields, etc.);
- To use the machine in explosive atmospheres;
- To use the machine in inadequate light;
- To let the machine come into contact with foodstuffs;
- To tamper with equipment and/or safety devices;
- To tamper with the electrical circuit.

8. TRANSPORT AND LIFTING

The planer weighs 29 kg, so it can be lifted and moved by hand by a single operator.

To do this safely, the operator must:

- disconnect the power plug and wrap the cable on the brackets at the rear of the machine;
- grab the machine at the ends of the work tables with both hands.



Machine transport

- All transport operations must ALWAYS be carried out when the machine is stopped and no pieces of wood or other material are on the machine table.
- ALWAYS disconnect the power plug.

To move and lift the machine packed in cardboard box, we recommend that you use a pallet truck or a forklift with sufficient capacity.

9. INSTALLATION AND COMMISSIONING

9.1 Machine delivery and unpacking

The planer is delivered packed inside a cardboard box.

Each box contains:



Figure 12 – contents of the package Art. 0686/200.

Art. z	
Description	Quantity
Combined planing machine Art. 0686/200	1
Casing with suction nozzle – both lipping and thickness planer	1
Thickness adjustment knob – “thickness” planer	1
Allen wrench (4 mm)	1
Workpiece pusher	1
Lateral Guide	1
Belt drive (spare)	2
User's manual / Declaration of conformity	1/1

Before disposing of packing, check no parts of the machine, including the user manual or other documentation, are thrown away.

Also, make sure that at the time of unpacking, the machine is in perfect condition.

The manufacturer is not liable for any defects or missing parts five days after delivery.



Standard packing

- The packing materials (plastic bags, polystyrene, cardboard, etc.) must not be left within reach of children as a source of potential danger.
- Respect the environment! Dispose of the packaging in accordance with current legislation.



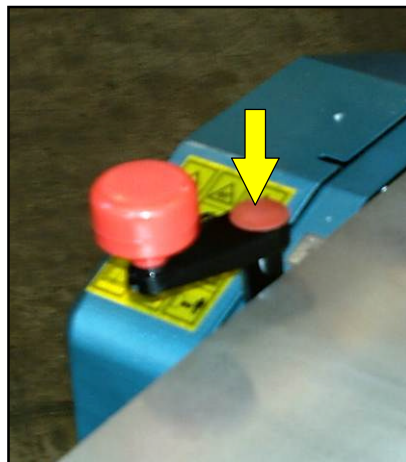
Machine parts that are not varnished are protected by a "protective layer" applied by the manufacturer. Use a cloth moistened with alcohol, rub and clean surfaces thoroughly to remove it.

9.2 Assembly

The Planer comes almost completely assembled. The only parts that must be mounted on the machine are:

- the thickness adjustment crank;
- the lateral guide (only for the lipping planer).

To mount the crank, insert the PIN and press it to the bottom, as shown in [Figure 13](#)



[Figure 13](#) – Installing the crank.

See paragraph 10.3 of this manual to assemble the lateral guide when using the machine as a lipping planer.

9.3 Positioning



Loss of stability

Place the Planer on a solid and durable surface, such as a workbench, to prevent it from tipping and causing vibrations.

Before performing any type of work, place the Planer on a flat surface that can withstand the weight and vibrations of the machine during operation.

The planer is equipped with four rubber support feet (see [Figure 14](#)), in order to reduce vibration of the machine during operation.



Figure 14 –Planer support stand.

9.4 Electrical connection



Voltage

Before connecting the machine to the mains, check that the voltage corresponds to that provided by the manufacturer.

1. Insert the power plug into a grounded bipolar wall socket (230 V AC).
2. Start the machine by pressing the green on switch (see section 10.2) and make sure that the direction of rotation of the cutterhead complies with that indicated by the arrow printed on the protective casing.
3. Before you begin, check the planing shaft and the other rotating parts as follows:
 - making them turn blank for at least 5 minutes at a speed of operation;
 - without the presence of staff.



10. OPERATION

10.1 Precautions for use



Using the Machine

The Planer must be used exclusively to work on wooden planks.



Risk of injury

Before using the machine:

- Make sure it is positioned correctly;
- Check that all guards are correctly positioned and fastened;
- Wear appropriate personal protective equipment (PPE) such as gloves, goggles, overalls or apron and shoes.

10.2 Starting/Stopping

To start the Planer, press the green button, marked with the symbol (I), as shown in [Figure 15](#).

By pressing this button, the electric motor is powered and placed in the cutterhead rotation that drag grooved roller



Figure 15 – switching on of the Planer.

Conversely, to stop the Planer, press the red button, marked with the symbol (0), as shown in [Figure 16](#).

By pressing this button, the power supply to the electric motor is cut off and the cutterhead and the other rotating parts stop.

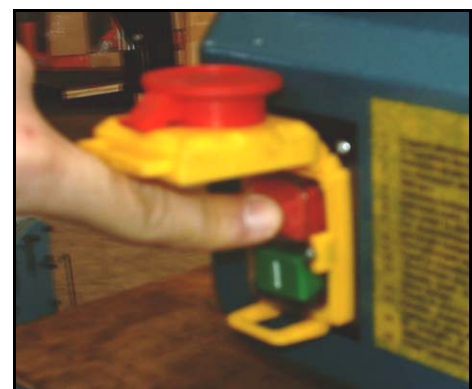


Figure 16 – stopping the Planer.



Risk of injury

After pressing the stop switch (0), the tree continues to rotate by inertia for a few moments. Do not hold body parts near moving blades



Direction of rotation of the tool

The Planer is dangerous if the cutterhead rotates in the opposite direction to that intended by the manufacturer.

Always check the direction of rotation by starting the machine for a short time.

10.3 How to configure the lipping planer



Risk of injury

Before carrying out any planer adjustment, **MAKE SURE** that the machine is completely **STOPPED** by cutting off the power supply.

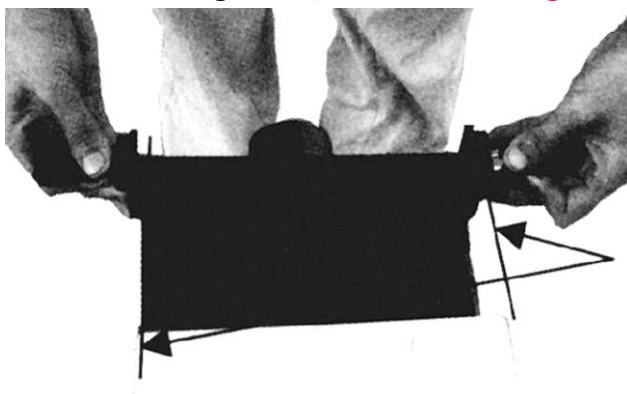
To configure the **Planer (Art. 0686/200)** for the lipping planer:

1. Insert the casing//chip exhaust manifold under the working table, as shown in [Figure 17](#).



Figure 17 – inserting carter under the table.

2. Pull out both bayonet couplings on the casing/collector and align the outside edges of the crankcase and working table, as shown in [Figure 18](#).



The edges of the shelter must be in line with the edges of the working table

Figure 18 – extraction of bayonet couplings.



3. Insert the two bayonet inserts inside the slits carved on the side edge of the table, as shown in **Figure 19**.

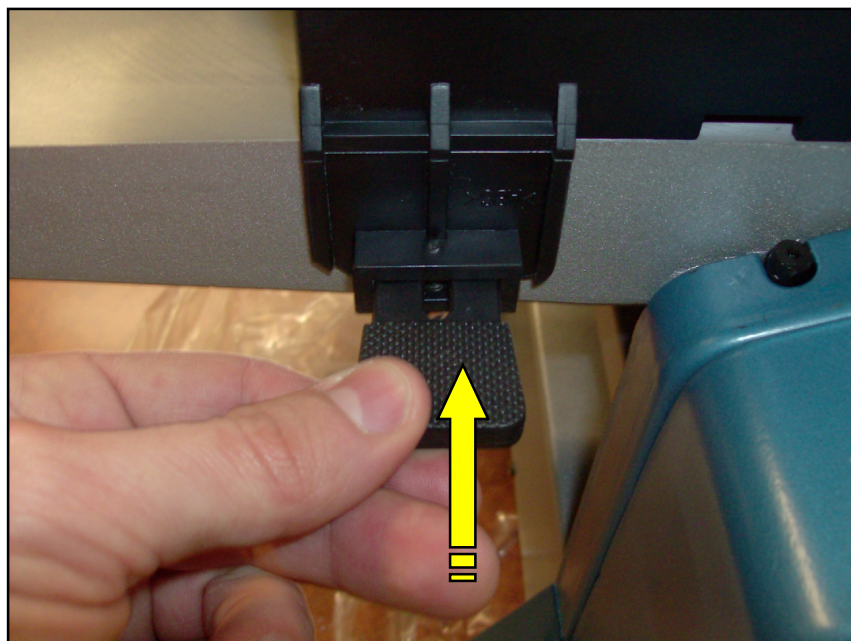


Figure 19 – insertion of bayonet couplings.



Insertion of grafts

ALWAYS check the correct insertion of both bayonet couplings before starting up the machine.

Both couplings should be inserted completely!

4. Lift the work platform completely, turning the handle (18) clockwise, in order to constrain the casing/manifold between the bottom edge of the table and the top edge of the platform itself. See **Figure 20**.

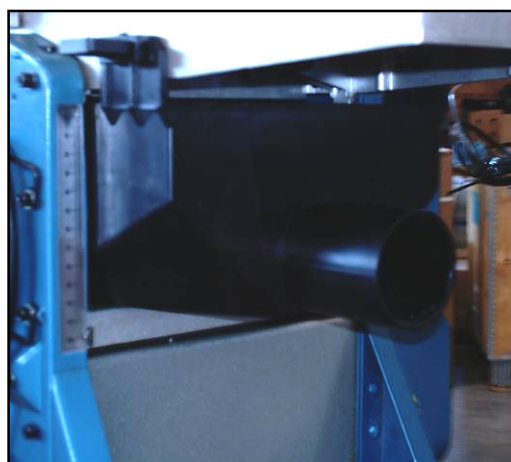


Figure 20 – Carter in the correct position under the working table.

5. Mount the lateral guide next to the working table. In this regard:
- Insert the pin below the lateral guide support into the reference hole on the frame of the machine;

- push the guide to the right, in order to align the slot on the mounting bracket with the hole on the table;
- attach the guide in place using the screws and washers supplied. To do this, use an Allen wrench as shown in **Figure 21**.

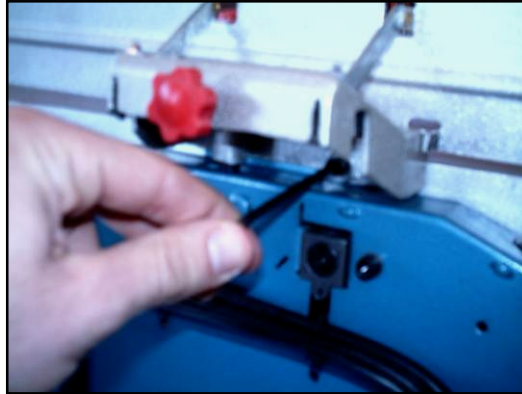


Figure 21 – Attaching the lateral guide.

To complete the configuration of the **Planer. Art. 0686/200** for lipping planing, proceed as described in the following pages of this manual.

Complete the Setup for lipping planing as follows:

Adjust the position of the cutterhead guard. To do this:

- Unlock the knob (16), by unscrewing counterclockwise;
- Pull the cover, sliding it outwards as shown in **Figure 22**.
- Lock the guard into place by tightening the knob (16).



Figure 22 – adjust the cutterhead guard.



Adjusting and fixing guards

To work safely adjust properly and secure the “bridged” guard of the cutterhead. The shelter should be adjusted according to the height and width of the planks.



Adjust the planing thickness, i.e. set the height of the work table, by rotating the knob (19) as depicted in **Figure 23**:

Turn the knob (19) counterclockwise to lower the table i.e. to increase the planing thickness;

Conversely, rotate the knob (19) clockwise to raise the table i.e. to decrease planing thickness.



Figure 23 – Thickness adjustment

10.4 Configuration for "thickness" planing



Risk of injury

Before adjusting the Planer, MAKE SURE that the machine is completely STOPPED by turning off the power supply.

Proceed as follows to configure the **Planer Art. 0686/200** for "thickness" planing:

- 1 If you previously configured it to perform lipping planing, remove the lateral guide.



Removing the lateral guide

If necessary, disassemble the lateral guide on the side of the work table, performing the operations described in paragraph 10.3.

- 2 Adjust the position of the cutter block guard so that the entire cuttershaft (and the blades), is completely uncovered. In this regard:
 - Unlock the knob (16), by unscrewing it counterclockwise;
 - Pull the cover, sliding it outwards along its entire length, in order to "take it out" of the work table, as shown in **Figure 24**.
 - Lock the cover into place by tightening the knob (16).

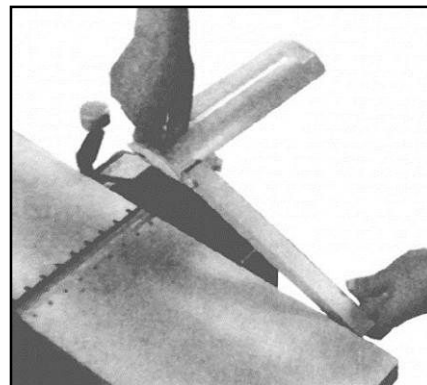
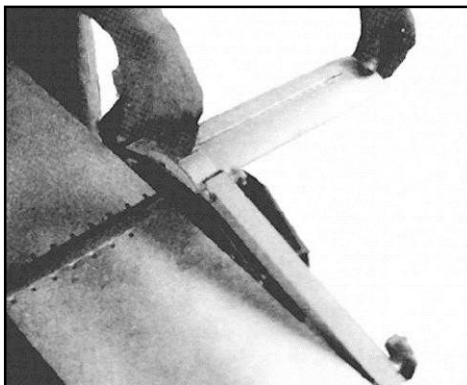


Figure 24 – Casing in the correct position for the "thickness" configuration

- 3 If it was previously configured for lipping planing, remove the casing/collector from under the table.



Casing/collector disassembly

If necessary, disassemble the casing/collector under the work table, performing the operations described in paragraph 10.3 inversely.

- 4 Support the casing/collector above the working table, as shown in **Errore. L'origine riferimento non è stata trovata.** **Errore. L'origine riferimento non è stata trovata.** **Figure 25.**

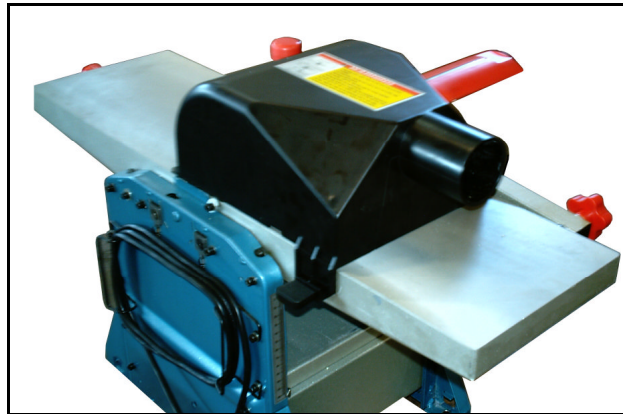


Figure 25 – Casing above the work table.

4. Pull out both bayonet couplings on the casing/collector and aligning the outside edges of the casing and working table.
5. Insert the two bayonet inserts inside the slits on the side edge of the table, as shown in **Figure 26.**

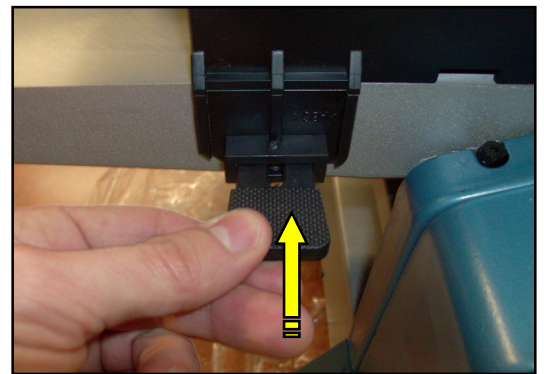


Figure 26 – Inserting the bayonet couplings.



Insertion of grafts

Always check the correct insertion of both bayonet couplings before starting up the machine. Both couplings should be inserted completely!



6. Adjust the planing thickness, i.e. set the height of the work platform, by turning the handle (18). See Figure **Figure 27**.

- Turn the crank (18) anticlockwise to lower the platform to increase planing thickness;
- Conversely, turn the crank (18) clockwise to raise the platform i.e. to decrease planing thickness.

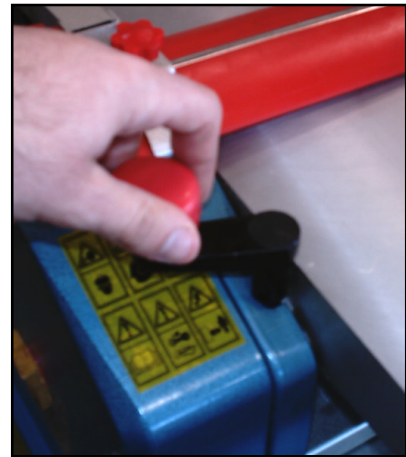


Figure 27 – Thickness adjustment



Chips and sawdust suction

In any case, whatever the configuration of the machine before starting to work, always connect a vacuum cleaner to the crankcase vent/exhaust manifold.

It is forbidden to operate without having connected the device to the Planer!

10.5 How to perform safe planing

10.5.1 Surface planing

Keeping the guard against the output table, bring the guard against the guide with your left hand, then lift it up according to the thickness of the workpiece.

Push the piece just below the guard with your right hand and place the latter on the workpiece (see **Figure 28**).

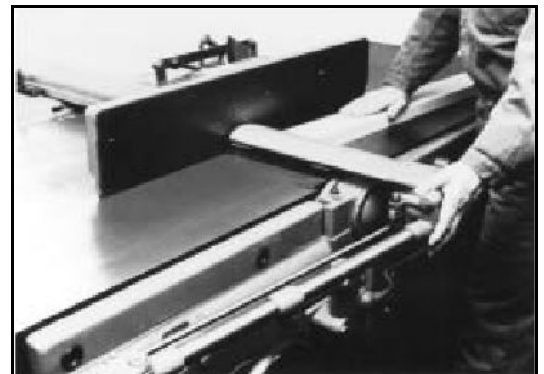


Figure 28 – Adjustment of the guard.

With your hands on the workpiece guide it to the input table and then slip it over the guard or move it further with one hand (as shown in **Figure 29**).

As soon as possible keep guiding the workpiece with both hands onto the output piece.

This technique can be implemented with reduced thickness workpieces.



Figure 29 – Surface planing.

10.5.2 Lipping planing

Place the workpiece against the guide and guide it with the right hand approximately up to the entry side of the lip of the input table.

Push the guard with your left hand against the workpiece. The guard should be based on the output table (see [Figure 30](#)).



Figure 30 – Guard adjustment

With the left hand, for example with clenched fist with the thumb against the piece, press and hold the workpiece against the output table. Advance the piece regularly with the right hand, for example with a clenched fist with your thumb on the piece (see [Figure 31](#)).

This technique can be implemented with reduced thickness workpieces.

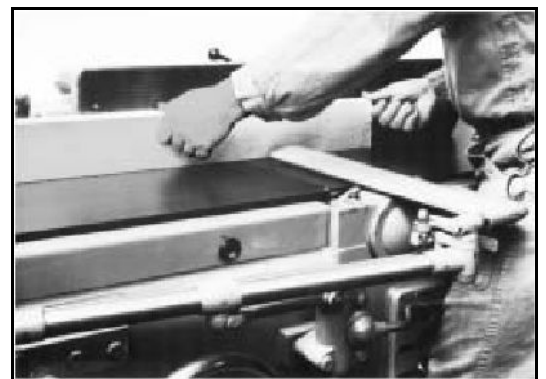


Figure 31 – Lip planing.

10.5.3 Planing pieces of greater thickness

Rest the guard on the table and adjust it horizontally on the width of the workpiece.

Align the workpiece against the guide with your hands resting on the workpiece at the side of the guard (see [Figure 32](#)).

Advance the workpiece with both hands. In this action the left hand, for example, a clenched fist, push the workpiece against the table and help out. Res the right hand on the workpiece.



Figure 32 – Planing thicker pieces.



10.5.4 Planing short workpieces

Push the workpiece on the table with the palm of your hand and advance it holding the block-piece with your right hand. Slide your left hand on the guard or bring your left hand beyond it and as soon as the piece rests on the output table move the pressure on the left hand on the output table (see **Figure 33**)

The block-piece should not be thicker than the workpiece.



Figure 33 – Planing short workpieces

10.5.5 Planing with 45° inclined guide

Rest the workpiece with your right hand against the inclined guide.

Press the guard horizontally with your left hand so that it just touches the workpiece and tighten the locking lever with your right hand. This way the shelter is stuck sideways and the workpiece cannot slip out of the guide (see **Figure 34**).



Figure 34 – Adjusting the guard.

Keep the workpiece pressed against the output table and with the left hand clenched into a fist push it forward with the right hand closed (see **Figure 35**).

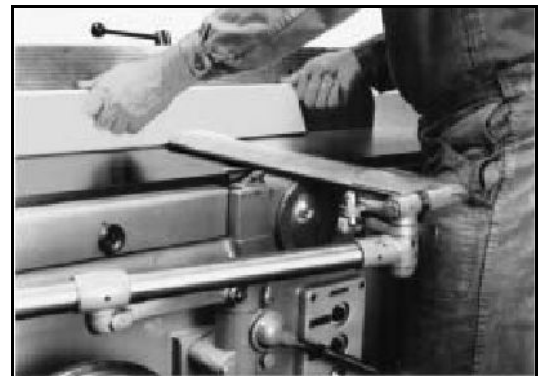


Figure 35 – Planing with 45° inclined guide.

10.5.6 Strip planing

Adjust the guard as for surface planing, and pay particular attention while pushing the workpiece.



Risk of injury

With strip planing, pay particular attention while pushing the workpiece.

10.5.7 Thicknessing

Follow the procedure below to obtain the correct planing thickness(see **Figure 36**):

1. Position the workpiece on the work platform for "thickness" planing, with the unworked side facing upwards.
2. Lift the platform in relation to the workpiece.
3. Adjust chip removal up to a maximum of 2 mm using the handle (18).
4. Switch on the machine and push the workpiece forward (see **Figure 36**).

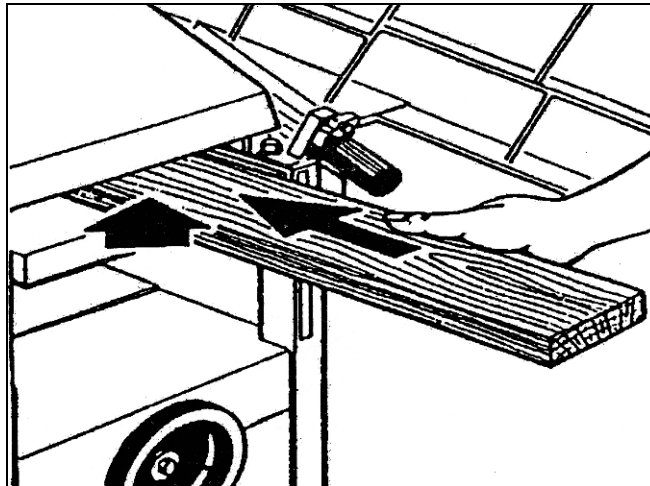


Figure 36 – Thickness planning.

The pieces with the ends shaped differently should always be inserted by the biggest side. When planing wood with knots, we recommend covering the thickness table with paraffin wax, to make its movement smoother.

11. MAINTENANCE

Any maintenance, except for that specifically listed in this manual should be performed by qualified staff authorized by the manufacturer.

This manual does not elaborate information on disassembly and maintenance, as these operations should always be carried out exclusively by Technical Assistance staff.

11.1 Ordinary maintenance

11.1.1 Routine at the end of each processing



Electric shock

Before maintenance or checks, turn off the machine and ALWAYS unplug the plug from the power outlet to avoid the risk of electric shock.

Regularly clean and take care of this machine to ensure perfect efficiency and durability.

Use a compressor to blow off shavings, chips and sawdust accumulating inside the machine and on work surfaces at the end of each machining operation



Working with compressed air

ALWAYS wear goggles when using compressed air.

Check the state of the Planer and CE plate and warning plate at the same time; If they are no longer legible ask for more.



Faults or defects

Disable the machine and affix a warning sign to forbid its use, until it works properly again and it is safe to use.



Cleaning the machine

DO NOT use detergents or solvents; the plastic parts are easily attacked by chemical agents.

11.2 Periodically

Every 6 months of the machine's life, perform a thorough inspection of operation and wear. Disconnect the plug from the mains and check the length and the efficiency of the electric motor brushes. If necessary, replace them with identical ones.

11.3 Lubrification

The machine is lubricated by the manufacturer.

The electric motor does not require maintenance (sealed bearings).

The wood feed rollers tend to get dirty working resin softwoods. Therefore, the rollers and bearing seats must always be kept clean.

The surfaces of the plates must always be sprayed with products that make them slippery to slide the work pieces better.

We recommend not using fat as it tends to blend in with the wood waste and makes the movements harder.

Approximately **every 10 hours of use**, we recommend lubricating the following parts:

- The bearings of the workpiece feed rollers;
- Pulley bearings and transmission gears;
- Workpiece feed roller transmission chain;

To lubricate these moving components, proceed as follows:

1. Remove the front guard, after unscrewing the 3 fastening nuts;
2. Lubricate the bearings and chain with lubricant (**Figure 37**).

After work is finished, replace the cover and fasten it using the 3 fixing nuts.



Figure 37 – Thickness planing.

Lubricate the headless screws for height adjustment of the working platform only with dry lubricants.

11.4 Checking/replacing the drive belts

To check the tension of the drive belts:

1. Remove the front guard, after unscrewing the 3 fastening nuts;
2. Check the tension of the drive belts pressing them down in the middle (between the two pulleys) and checking the transverse gauge of these belts (maximum sag).
They need to be replaced if the gauge is greater than 5/6 mm.

To replace the drive belts, proceed as follows:

1. Remove the front guard, after unscrewing the 3 fastening nuts;
2. Unscrew the 4 fixing nuts of the drive pulley and loosen the belts using the fixing holes of the pulley support;
3. remove the worn belt and replace it with an identical one or the same type;
4. Re-tension the belt by moving the drive pulley on the opposite side to that conducted by exploiting the fixing holes of the pulley bracket then attach the bracket by tightening the 4 mounting bolts.
5. Check the tension of the drive belts by pressing down in the middle (between the two pulleys) and checking the transverse gauge of the same belts.

After work is finished, replace the cover and fasten it using the 3 fastening nuts.



11.5 Replacing the cutting blades

The blades of the planer must be marked with the name or logo of the manufacturer and should indicate the maximum rotation allowed.

1. Unscrew the 3 screws from the blade using the appropriate key;
2. Remove the blade and blade pusher and clean the surface;
3. Clean the blade very carefully so as not to cut yourself.
4. Insert the new blade and blade pusher so that it protrudes on the surface of the shaft up to 1.1 mm, and then tighten the 3 blade fastening screws.

The manufacturer recommends that the blade should protrude from 0.7 to 0.8 mm.

Repeat the procedure for the replacement of the second blade.

After completing all the steps mentioned above, make sure that all locking screws for each blade are in the right position and well-tightened, then secure all protective covers; try to turn on the machine by pressing the start button.

12. DISPOSAL OF COMPONENTS AND MATERIALS

If the machine is to be scrapped, dispose of its components by separate collection.



Respect the Environment!

Contact a specialist centre for the collection of metallic materials.

In this regard, divide the materials according to their nature, with the assistance of specialist companies authorized for waste disposal, in compliance with the requirements of the law.



Respect the Environment!

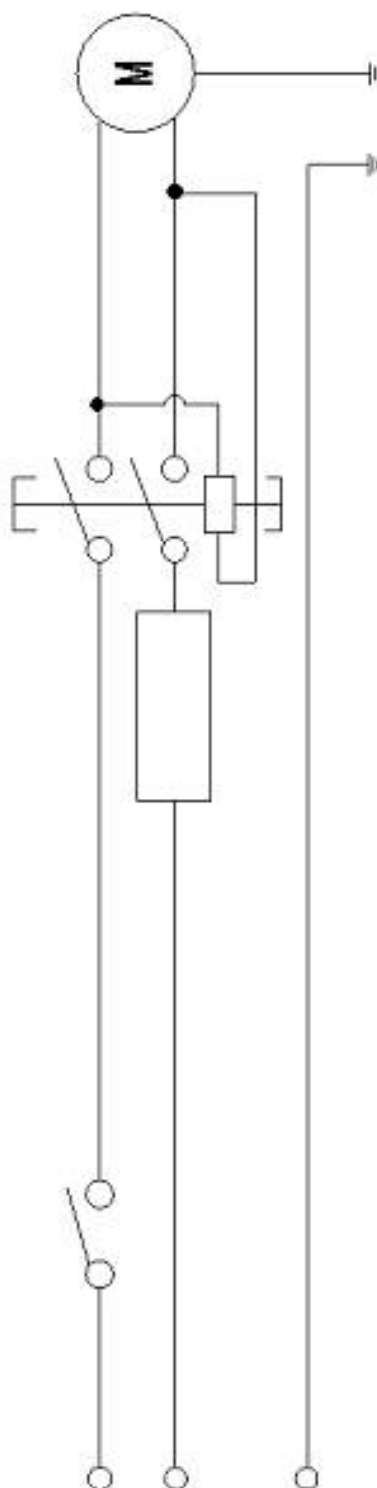
Dispose of tailings (shavings, sawdust, etc.) in compliance with current legislation.

13. TROUBLESHOOTING

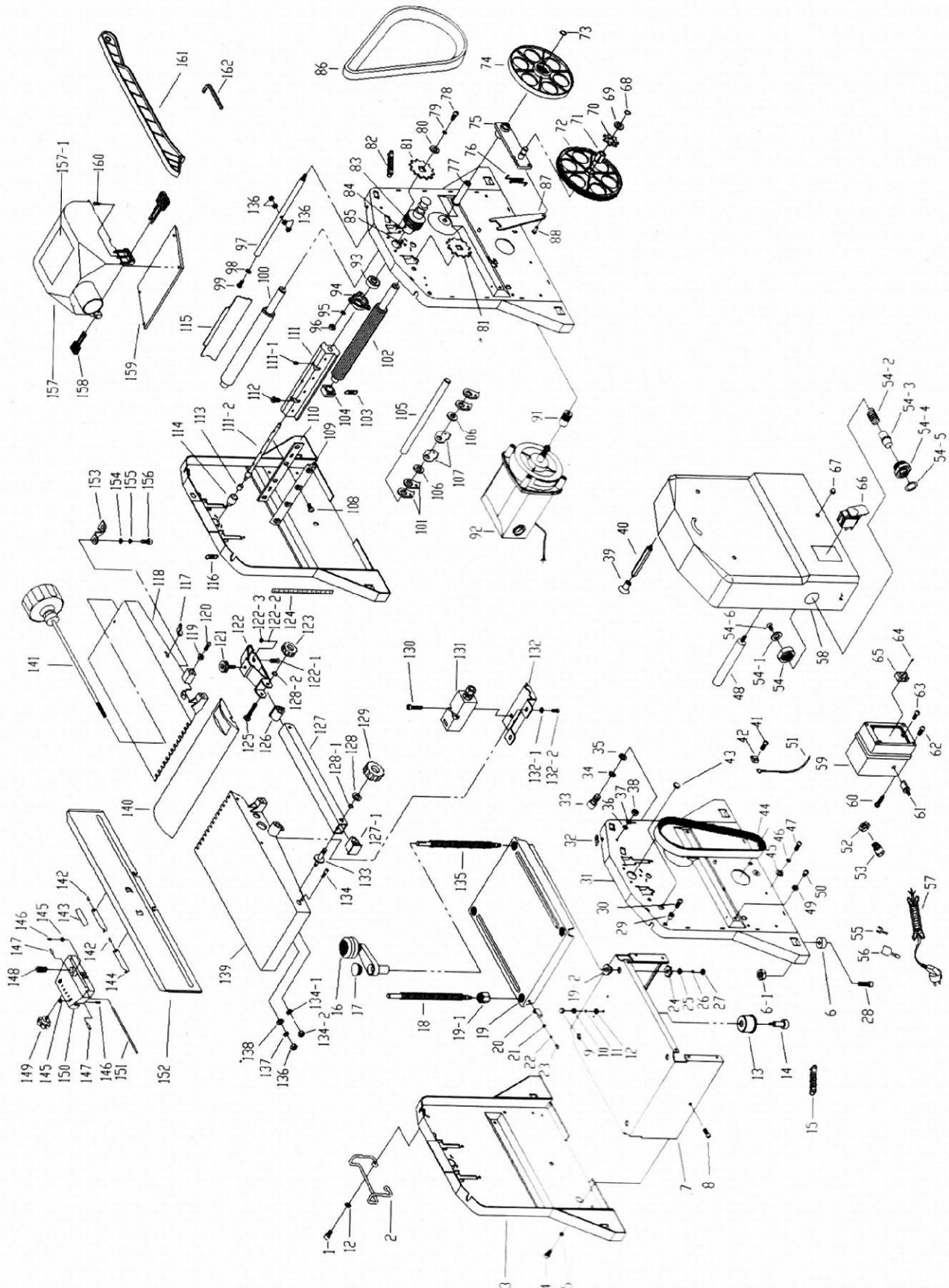
PROBLEM	PROBABLE CAUSE	SOLUTION
Noisy operation	A) Non-lubricated bearings. B) Rubbing the blades. C) Blade friction D) Loose blades.	A) Contact Technical Assistance. B) Lubricate. C) Remove/replace the blades and check for scrolling. D) Tighten the screws of the blades.
The motor will not start.	A) Electrical power supply. B) Electrical connections. C) Burnt motor windings. D) Blown fuses. E) Broken switch.	A) Check the power cord. B) Check the electrical connections. C) Contact Technical Support. D) Replace the fuses. E) Contact Technical Support.
Poor cutting efficiency or overheating of the blades.	A) Excessive pressure on the workpiece. B) Worn blades or that do not cut well. C) Material too hard.	A) Apply less pressure. B) Check the sharpness and wear of the blades. C) Lubricate while you work.



14. ELECTRIC CIRCUIT



15. REPLACEMENT PARTS





Reference n.	Description	Reference n.	Description
0686/200/01	Bolt	0686/200/42	Cable bracket
0686/200/02	Cable wrap	0686/200/43	Rubber bearing
0686/200/03	Side guard	0686/200/44	Flat belt
0686/200/04	Bolt	0686/200/45	Washer
0686/200/05	Split washer	0686/200/46	Split washer
0686/200/06	Rubber bearing	0686/200/47	Bolt
0686/200/06-01	Hex nut	0686/200/48	Rod II
0686/200/07	Motor protection	0686/200/49	Washer
0686/200/08	Bolt	0686/200/50	Bolt
0686/200/09	Nut	0686/200/51	Line
0686/200/10	Nut	0686/200/52	Plastic locking nut
0686/200/11	Split washer	0686/200/53	Protective grommet
0686/200/12	Washer	0686/200/54	Nut
0686/200/13	Conical ring	0686/200/54-01	Washer
0686/200/14	Screw	0686/200/54-02	Spring
0686/200/15	Chain	0686/200/54-03	Rod
0686/200/16	Crank	0686/200/54-04	Screw
0686/200/17	Cap	0686/200/54-05	Scale
0686/200/18	Short threaded pin	0686/200/54-06	Screw
0686/200/19	Table	0686/200/55	Line lock
0686/200/19-01	Threaded pin, nut	0686/200/56	Rubber bearing
0686/200/19-02	Sleeve coupling	0686/200/57	Power cord
0686/200/20	Pointer	0686/200/58	Protective cap
0686/200/21	Split washer	0686/200/59	Switch box
0686/200/22	Washer	0686/200/60	Bolt
0686/200/23	Bolt	0686/200/61	Thermal protector
0686/200/24	Chain sprocket	0686/200/62	Bolt
0686/200/25	Washer	0686/200/63	Bolt
0686/200/26	Split washer	0686/200/64	Bolt
0686/200/27	Hex nut	0686/200/65	Terminal
0686/200/28	Bolt	0686/200/66	Switches
0686/200/29	Sleeve coupling	0686/200/67	Nut
0686/200/30	Bolt	0686/200/68	Split ring
0686/200/31	Left lateral guard	0686/200/69	Washer
0686/200/32	Cutting depth scale	0686/200/70	Chain sprocket
0686/200/33	Bolt	0686/200/71	Square sleeve
0686/200/34	Split washer	0686/200/72	Sprocket
0686/200/35	Washer	0686/200/73	Split ring
0686/200/36	Washer	0686/200/74	Pulley
0686/200/37	Split washer	0686/200/75	Plate

0686/200/38	Hex nut	0686/200/76	Spring
0686/200/39	Nut	0686/200/77	Shaft
0686/200/40	Rod	0686/200/78	Bolt
0686/200/41	Bolt	0686/200/79	Split washer

Reference n.	Description	Reference n.	Description
0686/200/80	Washer	0686/200/125	Headless screw
0686/200/81	Chain sprocket	0686/200/126	Lid
0686/200/82	Chain	0686/200/127	Square tube
0686/200/83	Belt drive	0686/200/127-01	Lid
0686/200/84	Bolt	0686/200/128	Spacer
0686/200/85	Bolt	0686/200/128-01	Split ring
0686/200/86	Flat belt	0686/200/128-02	Split ring
0686/200/87	Support plate	0686/200/129	Knob
0686/200/88	Pole	0686/200/130	Bolt
0686/200/89	Bolt	0686/200/131	Micro switch
0686/200/90	Split washer	0686/200/132	Switch cover
0686/200/91	Drive pulley	0686/200/132-01	Washer
0686/200/92	Motor	0686/200/132-02	Bolt
0686/200/93	Ball bearing	0686/200/133	Headless screw
0686/200/94	Bearing cover	0686/200/134	Stem
0686/200/95	Split washer	0686/200/134-01	Washer
0686/200/96	Hex nut	0686/200/134-02	Hex nut
0686/200/97	Strut	0686/200/135	Long headless screw
0686/200/98	Washer	0686/200/136	Hex nut
0686/200/99	Bolt	0686/200/137	Split washer
0686/200/100	Feed roller	0686/200/138	Washer
0686/200/101	Anti-expulsion	0686/200/139	Rear table
0686/200/102	Feed roller	0686/200/140	Blade guard
0686/200/103/116	Springs	0686/200/141	Pin
0686/200/104	Bearing bushing	0686/200/142	Short stem
0686/200/105	Rod	0686/200/143	Angle adjustment 1
0686/200/106	Washer	0686/200/144	Angle adjustment 2
0686/200/107	Anti-expulsion	0686/200/145	Nut
0686/200/108	Bolt	0686/200/146	Bolt
0686/200/109	Blade locking device	0686/200/147	Tapered shank
0686/200/110	Blades	0686/200/148	Bolt



0686/200/111	Blade support	0686/200/149	Knob
0686/200/111-01	Bolt	0686/200/150	Guide support
0686/200/111-02	Shaft	0686/200/151	Long stem
0686/200/112	Bolt	0686/200/152	Lateral guide
0686/200/113	Roller bearing	0686/200/153	Hanger clamp
0686/200/114	Bearing cover	0686/200/154	Washer
0686/200/115	Blade baffle plate	0686/200/155	Split washer
0686/200/117	Plastic pointer	0686/200/156	Bolt
0686/200/118	Front table	0686/200/157	Intake manifold
0686/200/119	Sliding blocks	0686/200/158	Key
0686/200/120	Bolt	0686/200/159	Lid
0686/200/121	Knob	0686/200/160	Bolt
0686/200/122	protection arch	0686/200/161	Push-piece lever
0686/200/123	Knob	0686/200/162	Allen wrench
0686/200/124	Scale		